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BLACKWOOD OR ROSEWOOD OF SOUTHERN INDIA

(DALBERGIA LATIFOLIA.)

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The object of this hand-book is to bring together the available information, mainly derived from a recent enquiry by the Indian Forest Department, with reference to a timber which is already known in the English timber market under the name of East Indian Rosewood, with a view to promoting the export thereof.

Dalbergia latifolia, the timber of which is known in the British timber market as East Indian Rosewood, is a deciduous tree belonging to the Natural Order Leguminosæ.

In his 'Forest Flora of North-West and Central India,' Brandis says that the tree is found in "the dry forests of South and Central India frequently associated with Teak and Bamboo in Southern India, also in the evergreen forests, extending north to the Satpura range, Bundelkhan, the Malwa plateau (Bassi in Meywar); also, in the Andamans, in Bengal, Behar, in Sikkim at the foot of the Himálaya, and (small and small) in the Baraith and Gonda forests of Oudh, along the base of the hills.

"In South India and the Godáviri forests (Ahiri) a large tree, 60 to 80 feet high, with an erect, but not generally straight or regular trunk to 20 feet girth. In North India a moderate-sized or small tree, numerous thick branches, spreading into a large shady crown. Coppices well, and propagates itself readily by self-sown seed. Easily raised from seed, but of slow growth, especially while young; five to nine rings per inch of radius.

"Sapwood large, whitish;* heartwood with an irregular outline, from deep nut-brown to blackish purple, with white or purplish veins and streaks of lighter colour, and small whitish specks; fine-grained, strong, and heavy. The average weight of seasoned Blackwood fluctuates between 54·68 lb; the lower figure is that given by Skinner as a result of Baker's experiments made with the Provinces list, however, the weight of the wood ranges between 722 and 800 lb per cubic foot, and has

Madras.

The following reports were recently received from Forest officers, at the request of Mr. Ribbentrop, Inspector General of Forests, in connection with inquiries which were made in India concerning the sale of the timber in England:—

MADRAS PRESIDENCY.

Mr. J. S. Gamble, formerly Conservator of Forests in the Madras Presidency, supplied the following note:—

“The rate of £13-10 per ton, quoted in the ‘Manual of Indian Timbers,’ was for an exceptionally large piece, of handsome grain. But I believe that good Mysore or Wynád Blackwood would fetch £8 to £10 per ton any day, if sent in regular supplies, in good squares of sound wood, carefully seasoned.

“I used to be very sore at having to sell my Mudumalai and Benac Blackwood at 4 to 6 annas a cubic foot in the forest, knowing its value in Europe; and I contemplated arranging for departmental transit to the coast at Calicut or Tellicherry (cart to the Nilambur river down the Karkoor Ghât, or through Vayitri and then floating), but my transfer stopped my design.

“The timber on the Western Ghâts runs big. I have seen logs of 2 feet square (4 square feet) on the section and 20 feet long, and pieces in squares of 18 inches side are not uncommon.

“In these days of low exchange the trade in ‘Rosewood’ (as they must call it to make the dealers understand) ought to pay well, and I should not be surprised if the Australian market was even better than the British. It is just the question of the fashion. At one time, I remember, ‘Rosewood’ was the correct thing; at another it was ‘Mahogany;’ at another ‘Bird’s-eye Maple.’ Then came in the American ‘Black Walnut.’ Now I suppose ‘Padauk’* will have a run, but the fashion may easily go back to ‘Rosewood.’

“The pieces need not always be very large. Clearly large logs of ordinary wood have the best sale, but good small logs of pretty figure would possibly be better, and the handsome ‘Rosewood’ of the Circars and Northern Bengal might pay to export.”

The following information was supplied by the Conservator of Forests, Southern Circle, Madras:—

“The tree grows in the deciduous and semi-evergreen forests up to 4,000 feet in the districts of Canara, Malabar, Nilgiris, Coimbatore, Madura, and Tinnevely. As it has been one of the most prized woods of this part, and is of slow growth, and very susceptible to fires, it does not now exist as ripe timber in any large quantities anywhere, but is only found as scattered trees, mostly in out-of-the-way and difficult places to get at. Where we have been successful in protection, there is a good show of young growth, and a bright future.

“If it is not being taken out, every-where there is a future yield from

not sufficient for local consumption, and it has to be supplemented by imports from Travancore. In Tinnevely there are about 300 square miles with the timber very thinly scattered, and little used, as it is obtained at less expense from the Travancore forests.

“The present selling prices are as follows :—

Canara (on the coast)	.	.	Rs 35 to Rs 75 per ton according to quality.
Malabar („ „)	.	.	Rs 70 per ton.
Nilgiris . . .	.	.	Rs 20 per ton on the Wynád plateau ; but in out-of-the-way places it cannot be sold for even Rs 10 per ton.
Coimbatore . . .	.	.	About Rs 30 per ton.
Madura . . .	.	.	Rs 30 to Rs 45 per ton.
Tinnevely . . .	.	.	About Rs 50 per ton.

“The quantity exported is reported to be *nil* in Canara, the Nilgiris, Coimbatore, Madura, and Tinnevely.

“From Malabar alone have I returns of exports, and these show from the several ports—

770 tons in	1888.
887 „ „	1889.
953 „ „	1890.
383 „ „	1891.
645 „ „	1892.

“Since about 1885 a more active demand has sprung up for the wood from Malabar, and of the quantity exported in the last five years a little more than half (1,977 tons) goes to Bombay for furniture and carving (it is presumed that some of it is also transhipped for the home market), while Katywar (572 tons), Kutch (383 tons), Karachi (206 tons), London (110 tons), Havre (92 tons), and Hamburg (50 tons) mostly share the remainder.

“Though the prices have risen since 1890, the exports have not responded, thus pointing to an increasing scarcity of the wood.

“It is very difficult to estimate the quantity extracted. From forests under our control we only supply annually at present about—

20 tons from	Canara.
180 „ „	Malabar.
20 „ „	Nilgiris.
80 „ „	Coimbatore.
15 „ „	Madura.

“It may be roughly estimated that little or no private wood is cut in Coimbatore ; that the same as the above-mentioned quantity is cut in private lands of the Nilgiris ; twice as much as in Madura ; three times as much as in Canara ; and five times as much in Malabar ; or 1,325 tons in all.

“In Malabar the timber is large, and sells at sizes from 12 to 24 feet long, and from 3 to 6 feet in girth. In Canara and the Nilgiris the usual size is about 20 cubic feet ; in Coimbatore about 30 cubic feet. In Madura and Tinnevely the wood is small, from 4 to 6 feet length and up to 3 to 5 feet in girth.

“The tree grows readily from seed and root-suckers, and when coppiced young, shoots freely. It prefers a stiff, black clay, containing lime. The sap takes up much lime, which it deposits in cavities caused by injuries, often to the extent of several pounds. The lime, added to the natural hardness of the wood, makes the sawing of the wood at times very difficult.

“Recently I saw 150 tons being shipped at Calicut for Havre (I think), and was told that the sea carriage was at the rate of 50 shillings a ton.”

TRAVANCORE STATE.

"Blackwood is widely distributed through Travancore, but is nowhere abundant. It is found in the deciduous forest with an undergrowth of grass, but is more common, and thrives better, in open forest with an undergrowth of evergreen shrubs, bamboos, etc. Although found, in suitable situations, at all elevations between the sea level and 3,500 feet, it attains its greatest dimensions at about 1,000 feet, and here too the timber is said to be stronger and of a better colour.

"Blackwood seeds profusely, and its seeds are carried long distances by the wind, so that, in places not harried by fires, groves of small tree may be seen when no parent tree is visible. It also throws up shoots from the roots, and if we had a proper agency for preventing forest fires, this tree would become one of the commonest, as it is one of the most valuable in the State.

"The present price paid by the Bombay contractors is ₹19 per candy of $15\frac{5}{8}$ cubic feet for logs over 15 inches quarter girth, and ₹17 for logs under that size. This is equivalent to about ₹1-2 per cubic foot. Locally, for timber of large dimensions, as much as ₹1-8 can be obtained for a limited quantity.

"Figures for the last ten years show an average of 401 logs containing 487 candies (7,610 cubic feet), sold each year. Of these an average of 302 logs, containing 440 candies (6,875 cubic feet) has been sold for export; but the quantity taken locally is gradually increasing, and is now about 70 logs a year. The timber exported goes chiefly to Bombay.

"Very little first class timber comes down, for, when the tree attains a diameter of more than 15 inches, it generally begins to decay. Large trees of 4 feet in diameter are occasionally met with, containing sound timber throughout, but this is generally in places where the grass fires have not caused heart-shake." (*T. F. Bourdillon.*)

BOMBAY PRESIDENCY.

The following note was supplied by Mr. MacGregor, Conservator of Forests, Southern Circle :—

"It is only quite recently that a demand for Blackwood for export has sprung up. It is not a tree that is much used locally (*i.e.*, in the Southern Circle) for building purposes, although its good qualities are well known. This neglect of the wood for building purposes may be, in a great measure, owing to the fact that, wherever Blackwood is plentiful, Teak is also plentiful, and partly because it is less easily cut up, and is heavier. The wood is heavy and unsuitable for floating down the numerous streams of the ghâts. A cubic foot of seasoned heart-wood weighs about 48lb according to Mr. Talbot.

"Blackwood does not occur gregariously; it is generally very scattered, associated with Teak, Albizzias, etc.; it is rarely found in evergreen jungle. It grows to a great age without becoming unsound, and attains very large dimensions, trees of a diameter of $2\frac{1}{2}$ feet at breast-height being frequently met with, and it is the only species in the forests of the Southern Circle which can be compared with Teak as regards longevity and soundness at an advanced age. It is very difficult to determine the extreme age of Blackwood, but about 300 years appears to be the maximum age attained by it in the Bombay forests.

"Blackwood is irregularly distributed over all deciduous forests of Kanara and the western portions of Dharwar and Belgaum. A heavy rainfall appears to be necessary for the attainment of great age and size,

but it thrives at any elevation from the sea-level to the highest hill ranges of the ghâts.

"Trees of large dimensions are now rarely met with beyond the limits of the northern, central, and southern divisions of Kanara. They are most numerous above ghâts, and more numerous in the northern division of Kanara than elsewhere.

"Until lately there has been but little demand for the wood for export in the southern division.

"Logs for export should not be less than 24 inches diameter, should have the sapwood removed, and be exported in the round. Their lengths should be not less than 15 feet, although logs of shorter lengths are also saleable.

"Speaking roughly—it is impossible to make anything better than a rough estimate—the areas of the southern circle in which mature Blackwood occurs in quantities sufficient for the object now in view aggregate perhaps 700 square miles, but owing to the distance of many parts of the Reserves from the coast or railway, it would be necessary to deduct a considerable area from the above before arriving at the workable area, having regard to the present prices. I estimate 400 square miles as the probable limit of workable area at present.

"When the Government of Bombay contemplated the construction of a tram or railway from the Southern Mahratta Railway to Gund, in order to facilitate the exploitation of part of the forests of Supa in the northern division of Kanara, I was asked to make an estimate of the standing stock in that area. The sustained yield of Blackwood, of 6 feet girth or upwards at breast-height, on 181 square miles only of this area, I estimated to amount to not less than 1,805 tons of 50 cubic feet each, representing a net value at present rates of ₹40,000. But the area referred to was, it should be noted, probably the very best for Blackwood in the whole Circle. Experiments, with a view to ascertaining the quantity of Blackwood available annually, have not been made in other divisions of Kanara.

"The Forest Department does not sell Blackwood at the ports of export. Below the ghâts it is generally sold standing. The price realised there varies according to the quality of the wood and the situation of the jungles in which it is obtained from about ₹20 to ₹40 per ton net.

"The wood now goes to Europe, China, Calicut, Bombay, Broach, and other towns on the coast. That the wood goes south appears to indicate that the forests in Madras, Travancore, and Mysore, within paying distance of the coast, are becoming exhausted, or that they are unable to meet an increasing demand.

"Above the ghâts Blackwood logs are now being exported from the Hallial depôt to the port of Marmagão. The price at the Hallial depôt is about ₹42 per ton on an average, and the cost of cutting and transport to the depôt may be taken at ₹20 per ton, leaving a profit of ₹22 per ton.

"Mr. Talbot reports that last year 185 tons were sold at Hallial for local consumption at ₹37 per ton; 112 tons of selected logs were sold at ₹44 for export to Europe; and 250 tons at ₹48 for export to Broach.

"Round logs, from which the sapwood has been removed, are most in request for export.

"I have great hopes that the export of Blackwood, now in its infancy, will quickly increase up to the limit of capability of the forests, always excepting portions of the southern and central divisions far from the railway or the coast. Quite recently two European merchants (Mr. Brown of Calicut, and Mr. Tainsh of Bombay) have been induced to take up contracts for the purchase of the timber, and, if they are successful in disposing of it at a profit in Europe, the trade is certain to expand rapidly."

In the following statement, showing the quantities sold during the last three years in the northern and central divisions of Kanara, together with the amounts realised, the prices shown for the central division are net, and those shown for the northern division are gross prices, the cost of exploitation being about Rs 20 per ton of 50 cubic feet :—

Northern Division of Kanara.

YEAR.	Quantity.	Amount realised.	Average rate per ton of 50 cubic feet.
	Cubic feet.	R a. p.	R a. p.
1890-91	5,013	2,912 14 2	29 0 10
1891-92	632	371 10 9	29 6 5
1892-93	3,748	2,490 3 9	33 3 6
TOTAL .	9,393	5,774 12 8	30 11 10

Central Division of Kanara.

YEAR.	Quantity.	Amount realised.	Average rate per ton of 50 cubic feet.
	Cubic feet.	R a. p.	R a. p.
1890-91	2,821	2,235 0 10	39 9 10
1891-92 . . . . .	...	...	...
1892-93 . . . . .	...	...	...
TOTAL .	2,821	2,235 0 10	39 9 10

MYSORE STATE.

(a) KADUR DISTRICT.

“Blackwood is found in this district over an area of about 80 square miles. It is of two kinds, *bile-bite* and *kari-bite*. The former is of a light rose colour, and the latter of a black colour.

“Local demand for this kind of wood is very small. It is not therefore collected in large quantities in any of the depôts here. But, on receipt of an application from Mr. Brown of Calicut (Malabar coast) two years ago, 365 logs (8,075 cubic feet) were prepared in Lakvalli forest, of which he purchased 69 logs (1,942 cubic feet) at retail rates varying from 14 annas (2nd class) to 1 rupee (1st class) per cubic foot at Birur, and exported the same to England. Another merchant purchased about 4,000 cubic feet of wood at auction sale, at an average rate of 10½ annas per cubic foot at Birur, which, I hear, he despatched to Madras for making furniture. There are still (January, 1893) 1,842 cubic feet in stock at the Lakhvalli depôt, but there is hardly any demand for them.

“The retail prices now prescribed are :—

Lakvalli depôt	.	.	.	{ 1st class	.	13 annas per cubic foot.
				2nd „	.	11 „ „ „ „
Tarikere depôt	.	.	.	{ 1st „	.	15 „ „ „ „
				2nd „	.	13 „ „ „ „
Birur depôt	.	.	.	{ 1st „	.	1 rupee „ „ „
				2nd „	.	14 annas „ „ „
Chikmagalur depôt	.	.	.	{ 1st „	.	1 rupee „ „ „
				2nd „	.	14 annas „ „ „

“The size of logs available varies from 15 cubic feet to 50 cubic feet, but generally logs measuring more than 20 cubic feet, 1 square foot in section and 20 feet in length, are difficult to find in large numbers.”

“From what Mr. Brown’s agent told me, I learn that good prices are offered in England for large, straight, figury logs, free from sapwood, cracks, and hollows, and yielding planks not less than 18 inches in breadth, but that inferior logs will sell there.

“The logs of the Mysore District are far superior to those of Kadur, but even there Mr. Brown’s agent rejected more than two-thirds of the quantity collected, though the wood supplied was the best available in the forests. On these grounds I think that logs in the rough cannot be sold to advantage in England, but, if they are sawn into scantlings and planks, and seasoned well, there is a chance of selling with profit.

“The wood is very hard, and difficult to fell, saw, or work, on account of incrustations of lime between the grain, and does not season rapidly.

“Natural reproduction from seed is plentiful in the forests. It also coppices well, and throws root-suckers. Its growth is slow, especially when young, and it is calculated to take more than eighty years to attain 6 feet in girth. Trees measuring 50 to 60 feet to the first branch, and over 8 feet in girth, are available, though rarely, in the forests, but they are generally found on the banks of streams and in rather inaccessible localities.” (*B. Ramaswami Iyer, Assistant Conservator of Forests.*)

(b) SHIMOGA DISTRICT.

“Blackwood is found here and there over an area of about 500 square miles in State and District forests. It is mostly found in thick forests mixed with other useful kinds. The quantity sold from the depôts during the last ten years is given in the following table :—

NAME OF DEPÔT.	QUANTITY.		Average rate per c. ft.	Amount.
	No.	C. ft.		
			a. p.	Rs a. p.
Shimoga	46	1,229½	10 6	806 5 5
Kanabur	44	1,173¾	9 6	697 15 9
Aynur	30	658¼	9 5	388 4 5

“The average quantity extracted and exported is 306 cubic feet. The size of the logs varies from 16 to 50 cubic feet.” (*C. Naraina Rao, Assistant Conservator of Forests.*)

(c) MYSORE DISTRICT.

“The actual collections of Blackwood timber during the past three years from the different jungles of the district amounted to 7,638½ cubic feet, giving an average of 2,546 cubic feet a year. Of this quantity 2,937½ cubic feet were utilised in the Province for various purposes, and the balance outside the Province. It cannot be said for certain how much was actually exported to England; but Mr. Brown of Calicut purchased 1,428½ cubic feet in this district for export to England in 1890-91.

“The dimensions of the logs collected and disposed of varied from 9 to 22 feet in length and 4 to 6 feet in girth. The wood is being sold by retail sale at 12 to 15 annas per cubic foot.

“The timber is met with in all the jungles of the district, covering an area of about 278 square miles; but logs of big dimensions are found pretty abundantly only in the thick or *Malnad* jungles.” (*Y. Sita Ramaiya, Assistant Conservator of Forests.*)

(d) HASSAN DISTRICT.

“A small quantity of Blackwood is only very occasionally brought to the depôts, as the forests of this district do not contain much of this timber, and what is collected is consumed locally.” (*H. Moothappa, Sub-Assistant Conservator of Forests.*)

COORG.

Mr. F. Prevost, Deputy Conservator of Forests, reports as follows :—

“As a rule, the Blackwood logs exported from Coorg are 15 to 20 feet long, with an average girth of 5 to 6 feet.

“All the exported wood goes to Madras and Mysore, and is used in the manufacture of furniture.

“The Blackwood trees in Coorg are as a rule fine, healthy trees, with a fairly good length of bole, and give good sound timber.

“The depôt rate has been fixed at 11 annas per cubic foot, but, owing to want of competition at the quarterly timber sales, this price is never realised.”

The following statement shows the quantity of Blackwood sold annually during the five years 1887 to 1892 :—

YEAR.	Quantity.	Sold.	Amount.
	Number of logs.	Cubic feet.	Rs
1887-88	134	3,203	1,706
1888-89	126	3,866	2,409
1889-90	90	2,361	1,360
1890 91	87	2,512	1,386
1891-92	62	1,830	1,211

The price of East Indian Rosewood in the London market during 1892 was £7 to £11 per ton from January to October, and £5 to £9 per ton during the remainder of the year.

In their report on the Timber Trade, 1892, Messrs. Churchill and Sim state (*‘Wood Circular’*) that “the import (of East Indian Rosewood), although

heavier than in the previous year, was not very large, but, as the demand declined, prices became weaker, and some parcels of small sizes and poor character, which had to be cleared off by forced sales, realised low figures. Large good logs, although lower, did not suffer so much, and unsold stock is now moderate, but should not be increased until the demand increases."

EDGAR THURSTON,

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